

sTEem-at-Work
Puzzle #7
Electronic Systems Tech

The operational status of a robotic arm that does precision welding for Tampa Armature Company is evaluated by the relationship between the voltage applied across the arm's control circuit and the current that flows through that control circuit. In one part of the test procedure the current signal and the voltage signal are supposed to be 45 degrees out of phase. The two signals are in phase when they go up and down together and 180 degrees out of phase when one is at its maximum value when the other is at its lowest value. The cartoon below is an attempt to imitates the voltage and current signals measured during this part of the test procedure.

Is the robot arm operating as expected? (Yes or No)

